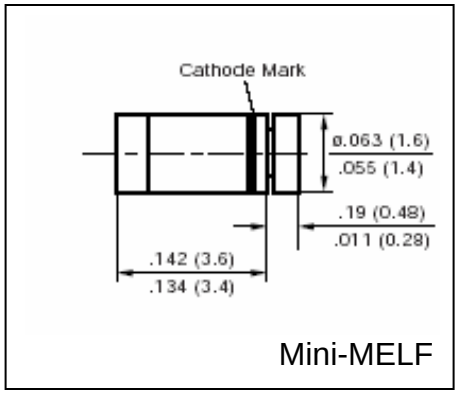
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

LL5711

VOLTAGE RANGE **70 Volts**
CURRENT **15 mAmps**

FEATURES

- Low forward voltage drop
- High speed switching
- Guard ring construction for transient protection
- Low reverse leakage
- High Temperature soldering guaranteed: 260 ^{O}C / 10 second
- Also available in DO-35 Package as 1N5711



MECHANICAL DATA

- Case: Mini-MELF
- Terminals: solderable per MIL-STD-202 Method 208
- Polarity: Color band denotes cathode end
- Weight: 0.0017 ounce, 0.05 gram, approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

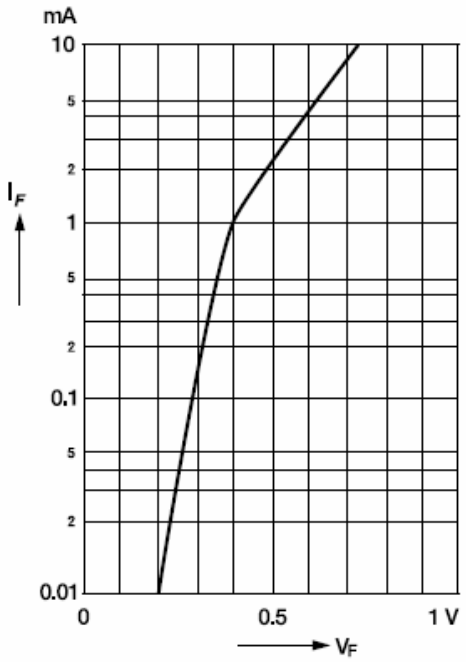
	SYMBOLS	LL5711	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	70	Volts
Maximum RMS Voltage	V_{RMS}	49	Volts
Maximum DC Blocking Voltage	V_{DC}	70	Volts
Maximum Average Forward Rectified Current,	$I_{(AV)}$	15	mA
Peak Forward Surge Current 10µS square wave superimposed on rated load	I_{FSM}	2.0	Amps
Maximum Instantaneous Forward Voltage I_F = 1.0mA I_F = 15mA	V_F	0.41 1.0	Volts
Maximum DC Reverse Current @ V_R = 50V	I_R	200	nA
Maximum Reverse Recovery Time , I_F = 5mA, I_R = 5mA, recover to 0.1I_R	t_{rr}	1.0	nS
Power Dissipation (Note 1)	P_D	250	mW
Typical Junction Capacitance	C_J	2.0	pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	600	^{O}C/W
Operating Junction Temperature Range (Note 1)	T_J	(-55 to +150)	^{O}C
Storage Temperature Range (Note 1)	T_{STG}	(-55 to +150)	^{O}C

Notes:

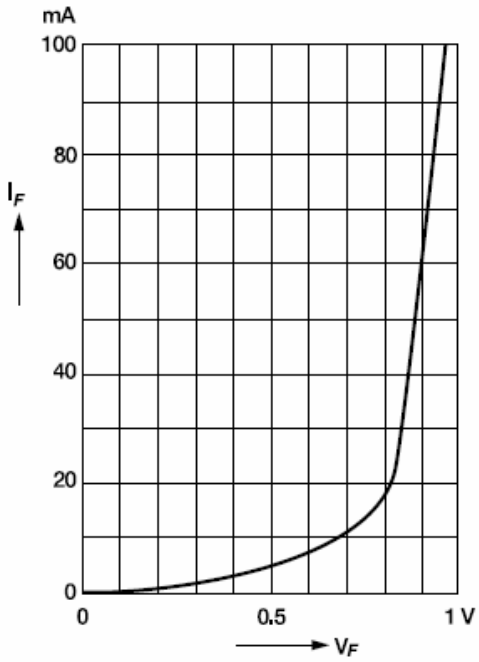
1. Valid provided terminals are kept at ambient temperature

RATINGS AND CHARACTERISTIC CURVES LL5711

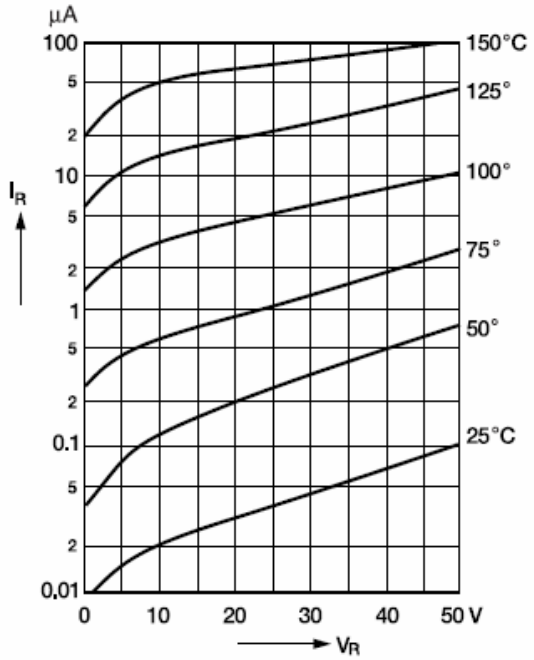
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



Typical forward conduction curve of combination Schottky barrier and PN junction guard ring



Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage